

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Original) Non-homogeneous adsorbent constituted by at least one crystal formed from a core and at least one continuous outer layer characterized in that the core of said adsorbent has a volume adsorptive capacity representing at least 35% of the volume of the adsorbent and the outer layer has a diffusional selectivity greater than 5.
2. (Original) Non-homogeneous adsorbent according to claim 1 characterized in that the volume adsorptive capacity of the core represents at least 40% of the volume of the adsorbent.
3. (Currently Amended) Non-homogeneous adsorbent according to claim 1 ~~or 2~~ characterized in that the diffusional selectivity is greater than 10.
4. (Currently Amended) Non-homogeneous adsorbent according to ~~claim 1 one of claims 1 to 3~~ characterized in that the adsorptive capacity of the core is greater than that of the continuous outer layer.
5. (Currently Amended) Non-homogeneous adsorbent according to ~~claim 1 one of claims 1 to 4~~ characterized in that the core is partially or totally empty.
6. (Currently Amended) Non-homogeneous adsorbent according to ~~claim 1 one of claims 1 to 4~~ characterized in that the core contains a crystallized micro- or mesoporous solid..
7. (Currently Amended) Non-homogeneous adsorbent according to ~~claim one of claims 1 to 6~~ characterized in that the continuous outer layer contains a crystallized microporous solid.

8. (Original) Non-homogeneous adsorbent according to claim 6 characterized in that the core has a crystal size between 0.1 µm and 0.4 mm.
9. (Original) Non-homogeneous adsorbent according to claim 8 characterized in that the core has a crystal size between 0.2 µm and 50 µm.
10. (Currently Amended) Non-homogeneous adsorbent according to ~~claim 1 one of claims 1 to 9~~ characterized in that the continuous outer layer has a thickness between 0.01 and 100 µm.
11. (Original) Non-homogeneous adsorbent according to claim 10 characterized in that the continuous outer layer has a thickness between 0.1 and 10 µm.
12. (Currently Amended) Non-homogeneous adsorbent according to ~~claim 1 one of claims 1 to 11~~ characterized in that the core and said continuous outer layer are zeolitic solids.
13. (Currently Amended) Non-homogeneous adsorbent according to ~~claim 1 one of claims 1 to 12~~ characterized in that it is in spherical or cylindrical form.
14. (Original) Non-homogeneous adsorbent according to claim 13 characterized in that the radius of the core represents at least 40% of the total radius of the adsorbent.
15. (Currently Amended) Use of an adsorbent according to ~~claim 1 one of claims 1 to 14~~ in a gas- or vapour- separation process.
16. (Currently Amended) Use of an adsorbent according to ~~claim 1 one of claims 1 to 14~~ in a liquid-separation process.